

The species of Reptiles recognized as hitherto known to occur in the Solomon Islands were stated to be 19, and those of Batrachians 9 in number.

This paper will be published in the Society's 'Transactions.'

The following papers were read:—

1. Note on the Dentition of a young Capybara (*Hydrochærus capybara*). By Professor W. H. FLOWER, LL.D., F.R.S., P.Z.S., &c.

[Received April 7, 1884.]

As is well known, the incisors of the simplicident Rodents have no milk predecessors. With regard to the molars, the rule seems to be the following. When there are only three (as in the Common Rat), or fewer than three (as in *Hydromys*), these are all true molars, and have no predecessors. These animals then are truly monophodont. When the number exceeds three, it is by the addition of teeth to the front of the series, which are premolars and are preceded by milk-teeth. In the large majority there is only one such tooth on each side.

When milk-teeth are present, a remarkable variation is observed in their characters and the period at which they are matured and shed. Thus in the Guinea-pig and its allies the one milk-molar (a small, though tolerably well-formed tooth) is absorbed or shed a short time before birth; while in the Porcupines and Beavers the corresponding tooth is retained until the animal has nearly reached the adult condition<sup>1</sup>.

On Nov. 30, 1875, two Capybaras were born in the Society's Gardens: one died on the same day, the other lived until the 8th of December. The skull of this one was preserved, and is now in the Museum of the Royal College of Surgeons. It shows the state of dentition at this early age particularly well.

In the adult Capybara the dental formula is  $i. \frac{1}{1}, c. \frac{0}{0}, p. \frac{1}{1}, m. \frac{3}{3} = 20$ ; the distinction between premolars and molars being inferred from the analogy of other Rodents, in fact of other placental Mammals. In the little animal eight days old, the cranium of which measures 102 millim. in length, the number of the teeth is just the same as in the adult; the incisors and four molariform teeth being all present and in an equal state of development. A small portion of the surface of each, including the posterior molar, has been already abraded by wear. The molar teeth show the same form and pattern as in the adult, being each divided by deep lateral grooves into distinct lobes corresponding to those of the full-grown tooth. They are, however, all very much smaller, the length of the whole series

<sup>1</sup> See "Notes on the First or Milk Dentition of the Mammalia," by W. H. Flower, Transactions of the Odontological Society of Great Britain, iii. 1871 pp. 211-232.

in the upper jaw being 30 millim. instead of 72 as in the adult. They evidently represent the narrow apical portion of the permanent teeth, which as growth proceeds wears off, and they are not in any case milk-teeth. As the first of the series, or premolar, is as fully developed as the one which follows it (or first true molar) it must either have no predecessor, or one which has disappeared at an early stage of intra-uterine life.

2. Studies in the Holothuroidea.—III. On *Amphicyclus*, a new Genus of Dendrochirotus Holothurians, and its bearing on the Classification of the Family. By Professor F. JEFFREY BELL, M.A., Sec.R.M.S.

[Received March 28, 1884.]

Among the valuable collections made during 1876 by Captain H. C. St. John, H.M.S. 'Sylvia,' in the Japanese seas were a few Holothurians; these were not reported on along with the rest of the Echinodermata, which some years ago formed the subject of interesting communications from Prof. Martin Duncan, F.R.S., and Mr. Sladen<sup>1</sup>.

Now that I am engaged in working through the collections of Echinoderms in the British Museum, the Trustees of which owe the specimens now under consideration to the generosity of Dr. Gwyn Jeffreys, F.R.S., I think it proper to direct the attention of the Society to two very remarkable specimens among these Holothurians which cannot be placed in any genus at present instituted. The lessons to be learned from these specimens, and the knowledge that has been acquired of forms unknown to Professor Semper, thanks chiefly to the labours of Ludwig and v. Marenzeller, lead, I think, to a reconsideration of the classificatory system and phylogenetic table which in 1868 was put out by Semper, to whom the student of Holothurians will always be under the deepest obligations. It is with diffidence that I propose to rearrange a family that has been studied by this distinguished naturalist.

*Description of the Specimens.*—Body elongated, tapering at its hinder end. Oral tentacles in two cycles; in the outer fourteen, of fair size, and more or less subequal; in the inner ten, very small, arranged regularly by pairs, radial in position. Suckers confined to the ambulacra, arranged in quite regular rows; in the bival ambulacra they are set in pairs, but are a little more irregular and more crowded in the trivial ambulacra. Owing to the attenuation of the body in the hinder region, the rows of suckers approach one another. The interradial are altogether free of suckers. There are no signs of any calcareous pharyngeal plates.

<sup>1</sup> Journ. Linn. Soc. (Zool.), vol. xiv. pp. 424, 445.

